

## **REMARKS**

### **I. Status of the Claims**

Claims 1-8, 32, 41, 50, 60-62, 64, 73-81, and 90-93 are pending. Claims 1-8, 32 and 92-93 stand rejected, and claims 41, 50, 60-62, 64, 73-8, 90 and 91 have been withdrawn from consideration. Claims 9-31, 33-40, 42-49, 52-59, 65-72 and 82-89 have previously been cancelled. Claim 1 has been amended and claim 94 is cancelled herewith.

### **II. Remarks**

#### **A. Amendments**

Claim 1 has been amended to recite that “R<sup>1</sup> is aryl, which may be unsubstituted or substituted with one or more of the following groups: -C<sub>1</sub>-C<sub>6</sub>alkyl, -O-(C<sub>1</sub>-C<sub>6</sub> alkyl), -OH, -CN, -COOR’, -OC(O)R’, NHR’, N(R’)<sub>2</sub>, -NHC(O)R’ or -C(O)NHR’ groups wherein R’ is -H or unsubstituted -C<sub>1</sub>-C<sub>6</sub>alkyl.” Support for this amendment can be found throughout the specification and examples. No new matter has been added.

#### **B. Rejections under 35 U.S.C. § 103(a)**

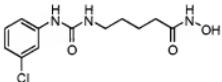
Applicants submit that the rejection of claim 1 has been obviated by the aforementioned amendment. Applicants further note that in the Final Office Action mailed on October 27, 2008, the Examiner indicated that the 103(a) rejection of claims 6-8 and claims 92-93 was withdrawn. *Final Office Action* at p. 3. Further, the Examiner has indicated that claims 6-8, 92 and 93 contain allowable subject matter. *Office Action Summary*. The Examiner now “maintains the rejection of claim 1-8 and 32, 92-94” as being allegedly obvious over Richon et al. Proc. Natl. Acad. Sci. Vol. 95, pp. 3003-7 (1998) (“Richon”) and WO0226696 to Watkins et al. (“Watkins”). The Examiner has not explained how the cited references, either alone or in combination, render claims 6-8 and 92-93 obvious.

In order to establish a *prima facie* case of obviousness, the Examiner must determine the scope and content of the prior art, ascertain the differences between the claimed invention and the prior art and resolve the level of ordinary skill in the pertinent art. *Graham v. John Deere Co.*, 383

U.S. 1 (1966); *see also* Fed. Reg. Vol. 72, No. 195, p. 57529. Once the Graham factual inquiries have been resolved, the Examiner must explain why the differences between the cited references and the claims would have been obvious to one of ordinary skill in the art. The Examiner must also show that one of ordinary skill in the art would have a reasonable expectation of success in making the claimed modification. The Supreme Court in *KSR* stressed that “obviousness cannot be sustained by mere conclusory statements; instead there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR* 127 S.Ct. 1727, 1740 (2007); *see also* Fed. Reg. Vol. 72, No. 195, p. 57529. Applicants respectfully submit that the Examiner has not met this burden.

The Federal Circuit has recently clarified the application of *KSR* to chemical compound patent claims. In *Eisai Co Ltd v. Dr. Reddy's Laboratories, Ltd.*, Slip op 2007-1397 (Fed. Cir. July 21, 2008), the court pointed out that when analyzing obviousness of a chemical compound, the difference between the claimed compound and the prior art “often turns on the structural similarities and difference between the claimed compound and the prior art.” *Id.* at p. 4. In order to establish that a claimed compound is obvious over a structurally similar compound, there must be: (1) a starting reference point or points in the art, (2) reasons for one skilled in the art to make modifications, and (3) reasons for narrowing the prior art universe to a “finite number of identified, predictable solutions.” *Id.* at p. 8 Thus, there must be “some motivation that would have led one of ordinary skill in the art to select and then modify a known compound (i.e., a lead compound)”. *Id.* (emphasis added).

The Examiner states that Richon discloses the following compound:



Richon compound 7, 3-Cl-UCHA,

which “differs [from the present claims] in that m is zero,” and further contends that “the use of the compounds is the same.” Applicants have pointed out that the Examiner has failed to establish that a person of ordinary skill in the art would have selected Richon’s compound 7 as a lead compound for modification. *Response filed November 25, 2009* at p. 10. In response, the Examiner points to a paragraph at page 3005 of Richon, which states that “3-Cl-UCHA is the most potent HPC in T24

and ARP-1 cells.” In relying on this selected passage of Richon, the Examiner has ignored the remaining data and text of the Richon reference. Instead, inappropriately using Applicants’ disclosure as a blueprint, the Examiner has selected a single example in which compound 7 had better activity to the exclusion of all other data described by Richon. Applicants note that additional data was presented in Table 1, Figure 1, Figure 2 and Figure 4, none of which would lead the skilled artisan to select compound 7 as a lead. In fact, many of these additional assays do not even test compound 7 at all, suggesting the it was not considered a lead compound.

Even if Richon were an appropriate lead compound, Applicants note that Richon’s compound 7 differs in that m is zero and in that the phenyl is substituted with Cl. Claim 1 as amended does not include a Cl substitution. Thus, a person of ordinary skill in the art would have required some motivation to modify the linkage so m = 1-10, and then to modify the substitution on the phenyl ring from a Cl to the list recited in claim 1 in order to arrive at the present invention. The Examiner further relies on Watkins for allegedly teaching “several linkages and that the phenyl ring does not have to be directly linked.” *Office Action* at p. 4. This statement does not explain why the skilled artisan would modify Richon as required in order to arrive at the present invention.

For at least these reasons, Applicants submit that the present claims are not obvious over either Watkins or Richon, or the combination of these references.

#### **C. Rejections under 35 U.S.C. § 112, first paragraph**

The Examiner has rejected claims 1-8 and 32 for allegedly not being enabled. The Examiner states that “Applicants have failed to show the starting material for the various heterocyclic groups.” *Office Action* at p. 4. in the Office Action mailed on October 27, 2008, the Examiner indicated that the specification was enabling for R<sup>1</sup> = phenyl (see page 16). The Examiner has not explained how dependent claims 2-8 and 92-93, in which R<sup>1</sup> is a phenyl group, are not enabled. Claim 1 as amended no longer recites a 3 to 10 membered heterocycle or a C<sub>3</sub>-C<sub>7</sub> cycloalkyl. Accordingly, Applicants submit that the enablement rejection has been obviated. Withdrawal of this rejection is respectfully requested.

### **III. Conclusion**

In light of the foregoing remarks, Applicants respectfully submit that the pending claims are in condition for allowance. Reconsideration and timely allowance of the pending claims is respectfully solicited. If a telephone interview would be helpful, the Examiner is invited to call the undersigned at 617-832-1223. Applicants hereby request that any additional fees required for timely consideration of this application be charged to **Deposit Account No. 06-1448, GUX-012.01**.

Dated: June 4, 2010

Respectfully submitted,

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